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Deregulation and Its Potential Effect on Airline Operations

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DEREGULATION AND ITS POTENTIAL EFFECT ON AIRLINE OPERATIONS

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DURING THE PAST year the subject of deregulation has emerged as one of the principal issues being debated within the United States. While the issue has been raised with regard to virtually every industry now regulated by the federal government, the purpose of this paper is to discuss the meaning of deregulation relative to the airline industry and its potential effects on that industry's long-run future.

The deregulators are calling for a reduction or elimination of Civil Aeronautics Board (CAB) control of the two most critical factors affecting an airlines' operation—which routes it may fly and what fares it may charge. While critics of regulation and other regulated industries have always existed, never in the thirty-seven year history of the Federal Aviation Act has such a strong and coordinated attack been mounted upon the basic principles underlying airline regulation. Economists concerned with excess government regulation, consumerists concerned with high prices, and various political factions have combined together into one cohesive force.

A brief look at the development of the air transport industry over the past fifty years will provide background to the ensuing discussion.

I. HISTORY

The industry as it exists today is very different in its structure from the situation in 1938, before the CAB was established. Prior to 1938 the industry was in a state of chaos, most carriers were experiencing serious financial problems or were on the brink of

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bankruptcy, the industry safety record was poor, unfair competition was the order of the day, and the public had no protection from deceptive practices. The CAB was established in 1938 to bring order to the industry, to prevent the wave of bankruptcies that threatened to reduce the industry to a few surviving carriers, and to protect the public from abusive pricing practices.

The proponents of deregulation argue that the CAB's record is blemished by its alleged failure to certificate new carriers into the industry. Such criticism is without merit. To begin with, it makes little difference whether additional competition comes in the form of a new carrier or the expansion of existing airlines. A vast amount of new competitive route authority has been granted by the Board to existing carriers since 1938. In 1938, when the CAB was created, there were 37,864 route miles authorized and today that figure has increased twelve-fold to 459,514 route miles. Furthermore, the CAB has been extremely active and willing to experiment with the certification of new carriers. In the last thirty-seven years the CAB has authorized approximately eighty-five new carriers to enter the air transportation field. This number includes some fifty so-called large irregular carriers that were granted exemption authority following World War II when many pilots and surplus aircraft became available. They were the forefathers of the current supplementals of whom only nine or ten have survived, reflecting a high mortality rate that resulted from inadequate financing and a generally poor safety record.

The number also includes twenty-nine local service and helicopter carriers and six all-cargo carriers—three other new classes of carriers that did not exist in 1938. Moreover, each of the eight surviving local service carriers is now larger than American Airlines was in 1938 when it was the world's largest trunkline carrier.

The foregoing clearly illustrates that the CAB not only helped stabilize the air transport industry, but also encouraged the development and diversification of types of service by authorizing new classes of carriers as progressive circumstances dictated. To deregulate the airline industry to the degree some are suggesting would undo all of these efforts, and return the industry to its chaotic state prior to 1938.

II. Proposed Deregulation

The proposed changes to existing airline regulation as spelled out in the Aviation Act of 1975 fall into two general categories:

First, the Act would allow freedom of entry and exit by substantially modifying the CAB certification power. This modification, it is alleged, would allow more efficient, lower cost carriers to enter markets and drive out the inefficient, high cost carriers. The result would be lower prices.

Secondly, the Act would eliminate the CAB's power to control rates, or allow carriers to file rates over a broad "range of reasonableness" in order to allow more efficient carriers to operate at a lower rate, or to provide a more spartan service at a lower cost. This change would also allow rate competition, which allegedly does not exist under current CAB policies.

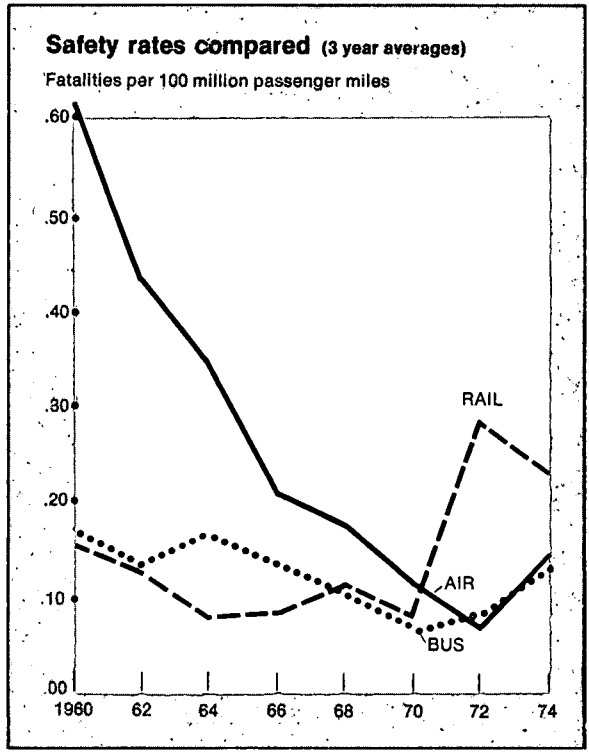
When such radical changes are proposed in the basic structure of an industry, one generally looks for a major area in which that industry has failed to serve the public interest. Generally, the answer may be found in one or more of the following areas: safety, volume of service, quality of service, technological progress, operating costs, or pricing. An examination of the air transport industry performance in each of these areas follows.

A. Safety

In the area of safety, the performance of our country's air transportation system is a matter of public record. Over the past decade U.S. air transportation has been more than twice as safe as air transportation elsewhere in the free world. Advocates of the Aviation Act of 1975 state that safety will not be adversely affected by the Act because the Federal Aviation Administration (FAA) will be beefed-up sufficiently to assure that corners will not be cut. Safety, however, is a full time proposition. Daily judgments must be made as to what is safe and what is not, and unfortunately these judgments are seldom black and white. As head of Operations for the carrier which has just received recognition by the Flight Safety Foundation for unparalleled achievements in the field of safety, I can state without qualification that an under-financed shoe-string operation will never be as safe as an establish-

ed, well-financed corporation with commitments to public service over the long term.

History itself underscores and emphasizes this safety message. The original Civil Aviation Act of 1938 was itself conceived and enacted for the simple reason that airlines were not sufficiently safe and because a degree of pricing chaos existed in which members of the public were paying grossly different fares for the same transportation service. Again, in the period immediately after World War II when returning veterans were permitted to establish small unscheduled airlines with minimum capitalization, the safety record of the industry slumped radically and regulation had to be tightened. Each time that freedom of entry and open price competition became realities, safety and service radically deteriorated. Subsequently, the choice was made (each time) to tighten regulation, but in the interim there had been a tragic waste of money and human life.



Source: Air Transport Association

The record of the air transport industry in its fifty-year history has been outstanding. Its fatality rate has been consistently dropping until now airline travel is safer than rail transportation and about as safe as bus transportation.

It is clear from the airlines' enormous investment in redundant equipment and new technology that safety is given top priority. The training, maintenance, and operations standards employed by U.S. airlines are the highest of any form of transportation, public or private. Similarly, the design and manufacture, testing, and government certification of U.S. aircraft serve as a model the world over. It would be deplorable if the safety standards of air transportation were again to suffer from an ill-considered move toward deregulation.

B. Volume of Service

A second service consideration for which an industry can be criticized is the degree to which it fails to meet the service needs of its customers. As mentioned earlier, there are currently 459,514 certified route miles in the United States. In the year 1974, despite frequency reductions required for fuel shortages, the U.S. airline industry operated some two and a quarter billion revenue plane miles. By this measure, therefore, each unduplicated route mile was flown on the average of 13.5 times per day. Nowhere else in the world does density of service begin to approach this level, a fact which has no doubt contributed to the rapid development of passenger air travel within the United States. Within the U.S. today scheduled air service is provided between 50,000 city pairs and U.S. trunk carriers serve 994 nonstop routes.

Despite the clear adequacy of this service record, deregulators argue that more direct competition or the *threat* of more competition is necessary to exert sufficient pressures on carriers to be as efficient as possible and to provide as much service as desirable.

For example, one provision of the Aviation Act of 1975 would provide any carrier the right to inaugurate nonstop service between any two points it currently serves. Another would allow supplementals to operate scheduled service. Still another would give international carriers domestic authority. And finally, as if this were not enough, each carrier would be given a certain amount of dis-

cretionary or bonus new route authority each year which could be used to commence service wherever it pleased. These provisions clearly create the equivalent of a free-entry condition for the airline industry. Just one of the aforementioned provisions would increase the average number of carriers permitted to fly in each of the top one hundred markets from the current average of 2.6 to a new level of 6.0.

FREEDOM OF ENTRY ANALYSIS*
100 TOP CAB O&D MARKETS
TRUNKS & PAN AMERICAN

RANK	*EXISTING NONSTOP AUTHORITY*	*ADDITIONAL AUTHORITY RECEIVED*	*TOTAL NONSTOP AUTHORITY*
1.	UAL—58	BNF—62	UAL—83
2.	TWA—43	PAA—51	DAL—72
3.	AAL—35	DAL—44	BNF—67
4.	DAL—28	NWA—43	NWA—65
5.	EAL—27	EAL—33	TWA—62
6.	NWA—22	UAL—25	EAL—60
7.	NAL—19	TWA—19	PAA—57
8.	WAL—12	AAL—18	AAL—53
9.	CAL— 9	CAL—18	NAL—37
10.	PAA— 6	NAL—18	CAL—27
11.	BNF— 5	WAL— 2	WAL—14
AVERAGE PER MARKET	2.6	3.3	6.0

* Assumes a carrier may operate nonstop between any two points on its certificate.

Source: American Airlines, Inc.

Under this same provision sixty percent of the top one hundred most densely traveled markets could be served by six or more carriers and a quarter of the markets would have eight or more carriers certificated to serve them—and that is only under one of the proposed provisions cited above.

What is not realized is that deregulation could ultimately destroy airline service to a substantial percentage of smaller U.S. cities. In an unregulated industry no airline will serve the smaller communities that lie on unprofitable routes. Although U.S. air-

FREEDOM OF ENTRY ANALYSIS*
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Nonstop Carriers Authorized	*MARKETS*		*CUMULATIVE PERCENT*	
	Existing Authority	*Free Entry*	*Existing Authority*	*Free Entry*
11	0	0	0%	0%
10	0	1	0	1
9	0	5	0	6
8	1	17	1	23
7	0	21	1	44
6	2	16	3	60
5	2	17	5	77
4	5	12	10	89
3	38	8	48	97
2	47	3	95	100
1	5	0	100	100

* Assumes a carrier may operate nonstop between any two points on its certificate.

Source: American Airlines, Inc.

lines connect 50,000 city pairs today, seventy percent of the business comes from only 900 of those pairs.

What would happen if full deregulation came to pass? It is impossible to say precisely, but in a study done by the Air Transport Association (ATA), the results were startling.

The ATA report said in summary that under deregulation scheduled air service might be eliminated or substantially reduced on 1,820 nonstop routes.

U.S. trunk carriers serve 994 nonstop routes. Of these, the report said 372 could be candidates for elimination with many of the remaining 622 experiencing service curtailment.

The ATA findings also show that where significant fare reductions might be made, the number of unprofitable routes rises from 372 to 564.

If subsidy by the federal government were increased in order to maintain service at small cities, the ATA forecasts that the cost of such subsidies, which today amount to $70 million and are paid to regional carriers only, could rise to as much as $1 billion annually. Service to the small cities today is provided through a carefully constructed fare structure which provides earnings on long-

haul routes sufficient to make it economically practical for airlines to serve shorter, less densely traveled routes in order to develop connecting long-haul traffic. Under the proposals of the Aviation Act of 1975 these more profitable long-haul routes will inevitably be the first target of added competition, thereby destroying the economic framework of air transportation network as it is known today.

The cities served by air carriers are certainly not in favor of the freedom of entry provision of the Aviation Act of 1975. A recent statement of policy issued by the Airport Operators Council International (AOCI) representing airport managers throughout the U.S., addresses this subject directly:

> AOCI opposes the removal of route certification by CAB which would result in erratic air service to the nation's communities and undermine the stability of airport/airline financial arrangements which enable airport operators to plan and finance needed facilities.
>
> Pending a determination of the form and extent deregulation might take, it is practically impossible to predict with any certainty the specific impact such a program would have on airport financing. Regulation by CAB does, however, provide the economic stability which permits the orderly long-range planning and financing of needed facilities because the present certification process both grants the air carrier an operating right and imposes an obligation on the carrier to provide service responsive to that right. Freedom of entry and exit allows full operating rights (at the will of the carrier), but imposes no service obligation.
>
> The existing air transportation system in the United States is an integrated system comprised of numerous parts, *i.e.*, airframe and power plant suppliers, support services suppliers, airline operators, airport operators, federal services (Federal Aviation Administration, National Transportation Safety Board and Civil Aeronautics Board), and others. Problems adversely affecting one part of an integrated system also affect the other parts and solutions to those problems also affect all parts of the system. The operators of the nation's airport system, represented by the United States members of the Airport Operators Council International, are greatly concerned about the successful resolution of the economic problems confronting the airline industry. Airports are an integral part of the air transport industry and consequently their financial viability is dependent on the economic well being of the entire industry. The airport operator's enormous investment in

costly facilities, his ability to raise investment monies for needed facility improvement and expansion and his responsibility to provide the public a diversity of services are, essentially, supported by leases and other financial commitments with major airline tenants. In addition, the revenue generated from other tenants at airports is dependent upon the passengers and freight generated at an airport by airline operations.

Deregulation proposals that would remove CAB route certification would have the effect of removing service stability from the nation's communities. Route certificates, which require a designated minimum service level by specified carriers, ensure that the "public confidence and necessity" is served and that entry and exit of carriers to and from markets does not occur without a determination of need and whether replacement service to fulfill the service and economic commitments of the departing carriers is required in the public interest. In the economic and financial management of airports, certificated service provides the stability necessary to finance airport development and to provide both the carriers and the traveling public with adequate, efficient and safe facilities at a reasonable cost.

In addition to the removal of carrier entry and exit provisions, some proponents of deregulation also propose some degree of fare flexibility. Although the theoretical supposition underlying the approach is that such fare competition would result in lower fares and traffic stimulation, it can also be expected that some carriers would either not be economically able to match lower fares offered by competitors and be forced from markets, or would attempt to match the lower fares with a resulting deterioration of service, safety and economic viability. Under such conditions, carrier bankruptcies would pose serious economic problems for all sectors of the aviation industry, including airport operators.

The promotion of a more efficient, safe and economical air transportation system in the United States can be achieved without the deregulation of the regulatory structure that has been instrumental in molding the present system and providing the stability required for the planning and financing of airport facilities serving that system. AOCI opposes the removal of route certification by CAB which would result in erratic air service to the nation's communities and undermine the stability of airport/airline financial arrangements which enable airport operators to plan and finance needed facilities.

In a deregulated environment the air transport industry will be unwilling to accept the enormous financial responsibilities necessary to maintain airports and airport facilities throughout the U.S.

No longer will American or any other carrier be willing to invest enormous sums in airport improvements, ticket counters, passenger facilities and the like when the state of the industry is so uncertain under the conditions of deregulation.

At the present time American Airlines alone is looking at new master plans, drawn up by city governments, totalling $4.04 billion at the various airports into which it operates. Not all of those plans will be realized, but the size of the proposals emphasizes the high amounts of capital that must be raised to finance local airports.

C. Quality of Service

There is no doubt that with deregulation the quality of airline service would be reduced. But the savings which would result from the elimination of so called service "frills" has been greatly exaggerated. It is quite common among the deregulators to charge that the airlines themselves could drastically reduce fares if the amenities of flight service were dropped: no movies to Minneapolis, no cocktails to California, and no food to Ft. Worth. If American Airlines had offered no food service in 1974, no beverage service, no in-flight entertainment, and had done absolutely no advertising, it could have saved a total of only five dollars per passenger. No one has asserted that for a five dollar reduction in the price of a ticket a mass of new travelers would appear at ticket counters desiring air transportation.

James E. Landry, general counsel of the Air Transport Association, told a University of Akron Law School symposium:

> Measured by any consumer standard—by a standard of price, or of quality, or of safety, or of service coverage, and by the freedom of choice from among a large number of competing airlines—this country's scheduled airline system works extraordinarily well.
>
> Carrying out provisions of the proposed Aviation Act of 1975, would ultimately decrease the number of airlines now offering competitive service, would reduce the amount and quality of scheduled air service and, over the long run, would produce higher fares and the most repressive regulation air transportation that its customers have ever known.

Noting that the nation has become accustomed to good scheduled airline service, a high standard of quality and that people

would not put up with the lack of it for very long, Landry said that "more stringent regulation and heavy subsidy would be costs occurring down the road a piece in a desperate effort to bring back a decimated air transport system to levels enjoyed by the public today."

D. Technological Progress

Another area that would be stymied by deregulation of the industry is the important technological advances that have been made in the last fifty years by the air transport industry. Deregulation of the industry would have an effect on the airframe and engine manufacturers as well as upon the hundreds of other aviation-related industries such as avionics firms, research and development organizations, computer manufacturers, and others who would no longer be in a position to produce equipment for the industry.

The U.S. airline industry has long been respected for its technological progress. Since its inception some fifty years ago the airline industry has sponsored and financed a major new aircraft technological development on the average of once every eight years. Environmental considerations alone are a perfect example of what has been accomplished: smokeless engines, reduced fuel consumption, and less noise. The avionics of the new large jets, a spin-off from the space program, now allow these jets weighing up to 700,000 pounds to land in zero-zero weather. Inertial navigation systems, costing over $100,000 each, now guide airplanes without requiring any radio inputs from the ground.

One must be concerned about the future of the U.S. commercial aerospace industry under a proposed system in which no airline can feel secure in committting support for technological progress to improve the environmental, economic, and fuel efficiency characteristics of aircraft.

Not only is this statement true for airborne systems, but for ground support systems as well. The airlines have been in the forefront in sponsoring advanced design computers. They have done much to aid computer organizations in developing their products to a more sophisticated level. The development of American's passenger reservations system, called SABRE, was one of IBM's most challenging undertakings. American alone now has nine advanced

computers that are used for purposes ranging from payroll to the tracking of aircraft in flight. Outside of the U.S. government, the airlines have been the largest users of computers in the country.

E. Operating Costs

One of the most serious charges leveled against the airline industry is that of overcharging the public for its service. Nonetheless, examination of the efficiency of U.S. carriers and that of carriers elsewhere in the world fails to substantiate the charge that U.S. carriers are inefficient. The following table compares the revenue ton miles produced per employee for U.S. trunkline carriers with that of major foreign carriers. It should be borne in mind in examining this comparison that the foreign carriers shown have substantially greater stage lengths than most U.S. carriers, providing them with a significant opportunity for greater productivity.

REVENUE TON MILES (RTM'S) PER EMPLOYEE IN 1974

RANK/AIRLINES		*RTM'S PER EMPLOYEE*
1.	NORTHWEST	111.3
2.	PAN AMERICAN	102.0
3.	TRANS WORLD	83.1
4.	CONTINENTAL	80.8
5.	WESTERN	79.7
6.	JAL	77.8
7.	AMERICAN	76.8
8.	UNITED	74.6
9.	BRANIFF	71.0
10.	AIR CANADA	65.7
11.	KLM	65.5
12.	DELTA	64.5
13.	LUFTHANSA	61.4
14.	EASTERN	60.1
15.	NATIONAL*	59.6
16.	ALITALIA	59.2
17.	QANTAS	58.4
18.	AIR FRANCE	49.9
19.	SAS	48.6
20.	BRITISH AIRWAYS	42.2
21.	IBERIA	36.0

* Strike seriously affected productivity.

Source: Air Transport World, January 1976, page 27.

On the basis of the foregoing comparison and other available comparative data it is evident that American carriers are on average more efficient than carriers located elsewhere in the world.

Another basis for the claim of operating inefficiency has been found in a comparison between the operating costs of U.S. interstate airlines and the costs of Pacific Southwest Airlines (PSA), an intrastate carrier operating solely within the state of California. Over the years PSA's operating costs have been substantially below comparable costs for interstate carriers. Until recently PSA successfully operated without union representation of its employees thus giving it some advantages on rates of pay and a substantial advantage in its ability to cross-utilize employees. More recently, a substantial percentage of PSA's employees have become organized and PSA was in severe financial difficulty through much of 1975. PSA as an intrastate carrier is not subject to regulation by the CAB, but is regulated in a highly similar manner by the California Public Utilities Commission with regard to the rates it may charge and the routes it may fly.

The allegation of overcharging, which uses PSA's operations as its basis, focuses on PSA's operating costs in the Los Angeles to San Francisco corridor. Comparing PSA's mileage rates in this market with rates charged by interstate carriers on similar stage lengths, some proponents of deregulation, like Senator Kennedy, have come to the conclusion that interstate carriers could lower rates by twenty-five to thirty-three percent if they were as "efficient" as PSA. What has been overlooked in this comparison is that the Los Angeles to San Francisco market is the most densely traveled segment in the United States and benefits from highly favorable weather conditions which permit a high percentage of flights to be conducted under visual flight rules. Further, the deregulators have overlooked the fact that PSA does not attempt to provide a complete airline service nor is it a member of the integrated interstate airline system of this country.

A recent study by Dr. John R. Summerfield, a consultant, who testified before the subcommittee on Administrative Practices and Procedures, shows that if PSA offered the same reservations, ticketing, inter-airline baggage connections, and food service between all U.S. cities as the interstate carriers, its annual costs would

have been $20 million greater in 1974, an increase of seventeen percent in operating costs.

Dr. Summerfield points out the inconsistencies in comparing an intrastate carrier with the major trunklines. For example, he testified that "PSA has estimated its reservations service cost at seventy-seven cents per passenger. If it had to handle the typical reservation loads of an intrastate carrier (three minutes vs. one minute per call), its costs would probably be at least $1.50 per passenger higher, or an extra $9.75 million a year."

In addition, he points out the training and revenue accounting costs that trunklines are burdened with, but PSA is not. "Because it doesn't sell interline space," says Dr. Summerfield, "PSA saves about $11 million a year compared with its interstate counterparts."

There are cost savings in other areas as well. For instance, since PSA operates on short hauls solely within the state of California, their flight times are short and they need offer no food or entertainment. Space normally required for galley equipment can therefore be used for seats, thereby creating an opportunity to generate more revenue per flight with little or no increase in operating costs.

Dr. Summerfield summed up his study very succinctly by saying:

> [T]he low-cost operation of the California intrastate air carriers is a thing of the past except for that portion of the cost structure attributable to isolation from the integrated U.S. air transportation system.

On the other hand, if all airlines were PSA's, the U.S. would not have a viable network of air transportation.

F. Pricing

Probably the most important objective in the eyes of the deregulators is to bring "real" price competition to the airline industry.

It is hard to understand the argument that there is little price competition in the air transport industry today. In fact, one of the most frequent criticisms leveled at the industry is that too many discount fares are available. Examination of the following page, excerpted from American's timetable effective January 5, 1976, gives the reader a vivid picture of the variety of available discount fares, ranging from a multitude of excursion fares with discounts

SPECIAL FARE INFORMATION

Fare Code	Explanation	Fare listed is O.W.	R.T.
F	First Class	X	
FN	Deluxe Night Coach	X	
J	*No-Frill. Ticket purchase and reservations required at least 7 days in advance. Travel permitted Monday through Thursday. No travel permitted after June 17, 1976.	X	
K	Economy	X	
KN	*Night Economy	X	
KU	*Night Standby. Standby travel in K or YN class.	X	
Y	Coach	X	
EXC F			
EC Y	*Excursion		X
YEB	*Excursion. Travel permitted on Saturday, Monday or Tuesday. Minimum/		X
YEBM	maximum return limit 1/16 days. YE8M fares not valid on non-stop flights.		X
YE10	Excursion. No minimum/10 days maximum return limit.		X
YE26	Excursion. Minimum return limit to/from San Francisco Sunday after		
YLE26	departure; to/from all other points 7 days. Maximum return limit 30 days		X
YE30	*Inclusive Tour Fare. Required ground tour purchase. Travel not permitted		
YNE30	after 2 p.m. on Friday and Sunday. Minimum return limit varies depending on destination. Maximum return limit 30 days.		X
YE32	*Excursion. Travel not permitted between 3 p.m. and 9 p.m. on Fridays and Sundays. Minimum/maximum return limit 10/30 days.		X
YE33	Ski Tour Excursion. Ground tour purchase required. Travel permitted Monday through Friday mornings; all day Saturday and Sunday. Return limits 2/30 days. Fares do not apply for travel originating at Albany or Hartford.		X
YE38	*Excursion. Travel permitted on Saturday or Tuesday. Minimum/maximum		
YE38M	return limits 24 hours/30 days. YE38M fares not valid on non-stop flights.		X
YLE27	*Excursion. Reservations and ticket purchase required 7 days in advance.		
YNLE27	Minimum/maximum return limit 7/30 days. YCHE27 fares apply for		
YCHE27	accompanied children 2 through 11 years of age. YNLE27 fare applies on night coach service only. Fares will not apply for travel originating after January 31, 1976.		X
YLE40	*Excursion. Reservations and ticket purchase required 14 days in advance.		
YNLE40	Minimum/maximum return limit 7/30 days. YNLE40 fares apply on night		
YCHE40	coach service only. YCHE40 fares apply for accompanied children 2 through 11 years of age. Fares apply for travel originating on and after February 1, 1976.		X
YN	Night Coach	X	
YU	Adult Standby. Reservations not permitted. Not valid on non-stop flights.	X	
YWE1	*Weekend Travel Fare. Travel permitted on Saturday and Sunday.		X
YWE2	*Weekend Excursion. Outbound travel permitted on Saturday or Sunday;		
YWE2M	return travel permitted on Saturday, Sunday or through noon Monday. YME2M fares not valid on non-stop flights. No minimum/30 day maximum return limit.		X
YWE3	*Weekend Excursion. Outbound travel permitted on Saturday or Sunday;		
YWE3M	return travel permitted on Saturday, Sunday or through noon Monday. No minimum/30 day maximum return limit. YWE3M Fares not valid on non-stop flights.		X
YWE29	Weekend Ski Excursion. Travel permitted between 6 p.m. Friday and Midnight Sunday. No minimum/2 day maximum return limit. Fares do not apply for travel originating at Albany or Hartford.		X
YWE44	*Weekend Excursion. Travel permitted between 8:00 pm Friday and Midnight		
YWCHE44	Sunday. No minimum/2-day maximum stay. YWCHE44 fares apply for accompanied children 2 through 11 years of age.		X
YXE9	*Midweek Excursion Travel permitted Monday through Tuesday. Ticket purchase required 7 days in advance. Minimum/maximum return limit 7/9 days.		X

O.W. — One Way Fare R.T. — Round Trip Fare

*Consult AA for further details including restricted travel periods, blackout periods, cancellation penalty.

Fares listed in this timetable are for information only and are subject to change without notice. Due to routing circuity, fares for specific itineraries may be higher than those listed.

of thirty percent, a number of inclusive tour fares with still greater discounts, night coach service with thirty-five percent discounts, special weekend and ski tour excursions, and finally, children fares at fifty percent discounts.

Not all of these fares are offered by every carrier on every segment, but when one carrier offers a particular discount fare it is extremely rare to find a case in which competing carriers do not match it. What the deregulators really mean then is not that there is an absence of price competition, but that there is no price differentiation. Each carrier offers the same or similar service at identical fares. But the absence of price differentiation does not result from a lack of competition. Rather, it reflects the nature of the airline product and the dynamics of the market place. Basically airlines sell a non-differentiated product—a seat between point A and point B. Surveys show and share of market statistics prove, that airline customers will select that carrier which offers the lowest fare for which they qualify. There is no way that any airline can remain competitive if it does not meet a lower price offered by a competitor.

Airline earnings also fail to substantiate the claims of overcharging leveled by many deregulation advocates. It has already been shown that U.S. airline efficiency exceeds that of carriers elsewhere in the free world. If unit cost comparisons are favorable, any overcharging of airline customers should be reflected in excessive profits. Quite the contrary is true. In 1974 the domestic trunklines had the best dollar earnings in their history. Nonetheless, the total earnings of $324 million represented only a 3.3% margin on sales and a 3.2% return on total invested capital (excluding all lease commitments). Preliminary 1975 results indicate that the domestic trunklines experienced a loss in excess of $100 million.

Despite the poor earnings of the industry over many years, many advocates of deregulation claim that a sweetheart relationship exists between the CAB and the airline industry. The answer to such claims lies in the earnings record itself and in the inability of the industry to obtain timely fare increases. As recently as June 1975, when it was apparent that the industry was on its way towards a substantial loss year, the CAB turned down requests for fare in-

creases. To justify the denial, however, the CAB had to alter its rate making principles, established in public hearings held during the early 1970's, by disallowing from the investment base aircraft which had become technologically obsolete due to high fuel prices, revising the income base to increase objective utilization factosr and disallowing a substantial proportion of discount fare travel. These CAB actions are now the subject of a lawsuit instituted by a number of airlines.

Because of the emphasis by advocates of deregulation on airline fares, the industry's historical fare performance takes on special significance. During the last thirty years the cost of shoes has risen 120%; of a car 228%; of tuition at Harvard 647%, while the average airline yield has risen only 16.6% in a period of thirteen years and most of that has come recently in the wake of spiraling fuel costs.

The airline industry believes its record on pricing, quality and safety of service, and technological innovation is an outstanding one. For example, in constant dollars average air fares today are sixty-three percent less than in 1938. Even when expressed in current dollars, the record is impressive. The one-way fare from New York to San Diego in 1935 was $160. Today's full fare one-way ticket on that route is $182, but the night coach price (available seven days a week without restrictions) is only $146—$14 less than the 1935 price. Between Chicago and San Diego, travelers in 1935 paid $115 one-way, but today's night coach passengers make the trip for just $110—in planes that are infinitely faster and more comfortable than the aircraft of the mid-1930's.

In addition, every recent survey shows airline travel to be among the cheapest forms of travel and certainly the fastest. In the July 1975, issue of U.S. News and World Report, travel costs for two adults on three typical journeys were compared. The study showed, for example, that for two adults traveling betwen Chicago and San Francisco leaving on a Monday and returning within thirty days, the couple could make the air trip in 4½ hours at a cost of $443. The same trip by rail involved fifty hours and, including the necessary meals and bedroom expenses, cost $743. By bus the comparable numbers were fifty-three hours and $469, and by

car (considering lodging, meals and tolls along with mileage) they were 4½ days travel time and $685 cost.

In addition to criticizing recent increases in airline fares, critics of the air transport industry frequently draw unfavorable comparisons between the U.S. industry and that of Europe. The cost of air transportation in Europe fails to bear out this contention. Even with the various pooling and restrictive service agreements between European carriers, which would be illegal in this country, the cost of an intra-Europe ticket averages more than one-third higher than in the United States. For example, a ticket between Dallas and Detroit, a distance of 987 miles is $81, between London and Lisbon, a distance of 966 miles, the cost is $160.

III. Operating Efficiency

The U.S. air transport industry is sympathetic with the desire of its customers to fly at lower prices. It does not agree, however, with the proposals of the deregulators or with the specific provisions of the Aviation Act of 1975. In fact, a very strong case can be made that enactment of the Act would be counter-productive and lead to higher, rather than lower fares. There are in reality only two methods available to lower fares significantly: one is to increase productivity per dollar of employee salary and the second is to increase load factor. Labor costs now account for more than forty percent of the airline expense dollar and airline employees are among the highest paid employees of any U.S. industry. Deregulation could conceivably change this pattern by admitting low cost, non-union airlines to serve the more densely traveled routes. Under such circumstances the older, unionized airlines could be rather quickly forced to abandon all non-profitable routes and drastically reduce employment. Even then many would be forced into bankruptcy and be replaced by lower cost non-union companies. As these unorganized carriers became unionized in their turn, they too could be replaced by non-union airlines. The result of this scenario could be lower airline prices, but only at a substantial cost measured in safety, service to smaller communities, and human suffering. The CAB Special Staff Study of the Aviation Act of 1975 pointed out that one of the benefits of the bill would be to reduce the "stranglehold" that organized labor

has exerted on the airline industry. Based on the preceding scenario it is clearly possible that costs could be reduced, but the price required to do so is extremely high.

A more palatable means of reducing price is to raise airline load factors. The incremental cost of carrying an additional passenger on a scheduled flight has been estimated variously between seven and thirteen percent. Based on these estimates, higher load factors could exert great economic leverage. A flight with one hundred seats at a fifty percent load factor may have to charge one hundred dollars per ticket to break even. The same flight with a hundred percent load factor, however, could charge fifty-five dollars per ticket and realize the same breakeven operation. Unfortunately, the demand for air travel is highly seasonal, varying by time of day, day of week, and month of year. Accordingly, it has proven impossible for air transportation to operate for an extended period of time at load factors much in excess of sixty percent and provide adequate public service during peak demand periods. Nor does this load factor experience suffer in comparison with other modes of transportation. While the airline industry has achieved load factors in the mid fifty percent range, the intercity bus industry has achieved load factors in the low forty percent range and the passenger railroads in the thirty percent range. Comparing air transport load factors with the utility industry yields the same favorable result. The Annual Report of the Con Edison Company of New York shows that in 1974 it operated at a load factor of 50.8%. In the same year, and for much the same reasons, the U.S. scheduled airline industry operated at a passenger load factor of 54.9%

Every airline executive would agree that somewhat higher load factors could benefit his own airline and be of simultaneous benefit to the traveling public in the form of lower prices. Nonetheless, the means of achieving higher load factors while meeting public service requirements in a competitive industry are limited. It has already been shown that airline operating costs and profit margins permit little decrease in the existing fare structure. Further, studies of the elasticity of demand for air transportation generally indicate that the total demand for air transportation is relatively inelastic. In its General Passenger Fare Investigation in the early 1970's,

the CAB found that the elasticity of demand for air transportation was less than unity, estimating it at a level of -0.7. There are clearly segments of demand for air transportation which are elastic, but these are already appealed to through the existing multitude of specialized airline discount fares. It has been generally concluded by experienced airline observers that further improvements in load factor lie not in lower fares or more discount fares, but in fewer available seat miles. The latter has been found difficult to achieve in today's competitive environment. Load factors would be still further depressed in an industry characterized by the degree of freedom of entry proposed in the Aviation Act of 1975.

IV. Economic Theory of Deregulation

Thus far this paper has dealt with the pragmatic issues underlying current pressures from the administration and consumerists in proposing deregulation of the U.S. air transportation industry. It has been argued that the deregulation proposal is likely to be counter-productive in achieving the price decreases sought by these groups. During the debate over deregulation, however, no one has yet addressed himself specifically to the position of the academicians. In summary form their position can be stated as follows:

1. The airline industry is not a natural monopoly since it has been determined that some degree of competition is desirable in the public interest;
2. There exists relative ease of disposal of assets in the airline industry thus differentiating it from a true utility; and,
3. One airline can very easily and quickly be replaced by another in providing a particular segment of air transportation.

While each part of the academicians' argument has an element of truth, all parts focus upon and tend to exaggerate the differences between airlines and public utilities and ignore the many similarities that exist. For a full understanding of this point it is necessary to examine the basic economic characteristics which have become generally recognized as representatives of a utility. Possession of these characteristics has been used by the government as an argument for regulatory control. Over a period of years and

through a long series of court cases the judicial system has developed a generally accepted set of criteria to use in defining a utility. It is the possession, in varying degrees, of certain economic and operational characteristics which has led, first, to government regulation and, second, to legal determination that certain areas of public service have the characteristics of a utility and therefore are properly subject to regulation.

Four qualities are generally recognized as being characteristic of a utility:

First, to qualify as a utility a particular business must be found to be affected with a substantial degree of public interest. For example, the service and rate structure of an American Telephone and Telegraph or of a Con Edison have been deemed by the courts to have substantial public interest aspects combined with a significant opportunity for abuse by the performer of the service.

Secondly, a utility is characterized by producing a non-inventoriable product which must be available in sufficient quantity to service highly peaked demands. This leads inevitably to substantial amounts of excess capacity during a majority of the time. An electric utility is expected to generate available capacity to satisfy demands in its service area during the early evening hours on the summer day, essentially without regard to the cost of idle capacity during the remainder of the year.

Thirdly, largely because of the previous characteristic, utilities are characterized by heavy capital demands and low capital turnover ratios. Some utilities exist which have capital turnover ratios of only once in every fifteen years although a more average ratio for the larger utilities appears to be once in every two and a half years.

CAPITAL TURNOVER RATIO—SELECTED UTILITIES
YEAR END 1974

COMPANY	*CAPITALIZATION* (000's)	*GROSS REVENUES* (000's)	*RATIO*
A.T.&T.	67,632.9	26,174	.38
Con Ed of N.Y.	5,778,043	2,439.5	.42
Public Service Electric & Gas	3,808,664	1,455.9	.38

Source: Moody's Winter 1976 Edition

Finally, and as a result of the preceding three characteristics, utilities are characterized by a lack of direct competition from other producers of the same product within the same geographical area. In a number of instances this has occurred only after competition has been tried and found wasteful both from a capital and operating cost point of view.

No one can contend that the air transport industry exhibits the foregoing characteristics to the same degree as an electric utility. Nonetheless, examination of the air transport industry reveals surprisingly similar characteristics.

First, there is considerable evidence that air transportation is affected with a substantial degree of public interest. Air transportation carries almost eighty percent of the common carrier intercity passenger traffic in the United States today and more than eighty percent of U.S. mail. More than ninety percent of international passenger travel is carried by air transportation. In numerous statements of policy by the U.S. Congress over many years, transportation in general and air transportation in particular has been found to be affected with the interest. Even specific portions of the air transport system have been deemed critical to the public interest. For example, in the policy statement contained within Public Law 85-307 it was "declared to be the policy of Congress, in the interests of the commerce of the United States, the Postal Service, and the national defense to promote the development of local, feeder, and short-haul air transportation." The public interest aspect of air transportation has been underlined in many other procedural practices of the CAB. It has become practice at each CAB hearing involving the addition or deletion of airline service for all of the affected cities to appear as protagonists and to play a significant role in the outcome of the proceeding. To a very important degree it is because the airlines are so affected with the public interest that the current desire on the part of some members of the Congress to appear to sponsor lower airline fares has come about. Indeed, lack of adequate air transportation by many is viewed as seriously as the necessity to reduce power consumption on hot summer days or experience momentary black-outs of service due to inadequate electric generating capacity.

Secondly, the air transportation industry meets the second utili-

ty characteristic probably as fully as do most utilities. The air transportation industry sells a non-inventoriable product; an unfilled seat once airborne is a wasted product. In fact, unlike many utilities, the air transportation industry possesses a limited flexibility to adapt the amount of product produced to the specific demand on a given day or at a given hour. Nonetheless, air transportation is expected by the public at large to satisfy a very high proportion of the peak demand existing (for example, at five o'clock on the Friday before Christmas) and is therefore subject, like a utility, to substantial amounts of excess capacity at other times. The result of this characteristic has been to create an airline pricing structure very similar to that of most utility industries. Incremental cost pricing is practiced widely, with discount fares being available during nighttime periods and during off-peak travel periods just as utilities have special rates for nighttime and off-peak usage. Even the load factor characteristics of air transportation are similar to those of utilities. During the last four years, Con Edison of New York has achieved an average load factor ranging from 50.5% to 56.4%. During the same four years the domestic trunk airlines achieved load factors ranging from a low of 48.3% to a high of 55.7%.

Thirdly, the airline industry is also capital intensive, and to a degree which has been largely overlooked by the academicians. Generally speaking, airlines are able to turn over their balance sheet capital on the average of 1.25 times per year. This figure compares to a typical capital turnover in a large utility of about 0.4. On the other hand, the airline capital turnover figure is deceptive. What is generally unrecognized by the academicians is that scheduled airlines have enormous capital commitments not shown on their balance sheets. The airlines have committed their credit throughout the U.S. as the basic security for the construction of both airports and airport terminal facilities. As mentioned earlier, the capital required to fulfill all currently existing master plans at airports served by American Airlines alone totals $4.04 billion. Airlines serving these airports will be expected to stand security for these requirements through long-term lease commitments. American Airlines alone has underwritten airport revenue bond issues in current dollar values to the tune of $736 million—with an

ongoing commitment to underwrite cost escalation at most of these same airports as incurred. Viewed in these terms, capital turnover ratios of the airline industry are no better than the average utility. The public and the academicians have been misled in this regard by the fact that these basic lease commitments have not yet appeared on airline balance sheets and have thus been ignored.

Finally, the fourth characteristic of utility industries is a lack of direct competition. In almost all other countries in the world the preceding three characteristics have been deemed adequate to cause air transportation to be regulated as a total monopoly. In such countries there is one flag carrier owned in part or totally by the government and given the monopoly rights to provide internal and external air service. In the United States a different practice has been followed. Perhaps because of the substantial geographic area it has been found practical to certificate limited competition on major routes within the country and a more limited degree of competition between U.S. carriers on international routes. Various carriers may challenge the degree of competition to which they are subject, but none would challenge the concept that some competition on some routes is beneficial to the efficiency of the industry. Controversy arises only when unlimited or excessive competition is contemplated. Contrary to most public utilities, air service is spatially fluid and a given airplane can be transferred from serving one pair of points to serving another. Nonetheless, that ability to transfer is limited by public interest considerations and by commitments made to underwrite airport and airport facility development.

Nor is the view completely correct that, unlike a true utility, airline assets are relatively liquid. Up to a point, aircraft may be sold to other airlines, but this possibility is more limited than generally recognized. Cockpit configurations differ widely between carriers and pilot training requirements force total cockpit standardization of any carrier's fleet. Investments of one million dollars or more may be required to achieve such standardization on a newly acquired used aircraft. Finally, airport revenue bond commitments are not transferable and must be primarily shared among scheduled certificated carriers. American Airlines, in common with other major carriers, has many other investments which are not readi-

ly liquifiable. These include large hangar facilities constructed to facilitate aircraft maintenance, main overhaul bases, flight training facilities with highly sophisticated simulators, etc. In American Airlines' case alone the non-capitalized lease commitments for the period 1975 to 2010 total over $1.2 billion. Even these figures do not tell the full story since American's landing fee payments of roughly $40 million per year constitute a further, ongoing commitment of the corporation to airport construction and operating costs. When all investment elements are cumulated, American's capital turnover ratio drops to approximately 0.5, a number not atypical of many utilities.

V. SUMMARY

This paper has addressed the probable effects of partial or total deregulation of the U.S. air transportation industry. It has attempted to show that the existing air transportation structure is serving the public convenience and necessity requirements for air transportation in a manner superior to any other country's air transport system. Finally, it has attempted to show that deregulation would be counter-productive in that its long term effect would probably result in higher, rather than lower, prices and would also probably destroy a substantial portion of existing service to smaller U.S. cities. Many transport economists have discussed these points. For example, D. Philip Locklin in his book *Economics of Transportation* summarized his discussion of regulation as follows:

> [I]t by no means follows that unrestricted competition would produce desirable results. If overcapacity developed, as would be quite likely, the temptation to out-of-pocket-cost rate making would appear; and even if it did not, earnings would likely be depressed below a remunerative level. Competition would soon give way to some form of monopolistic control.
>
> Another factor which should be considered is the possible effect of unrestricted freedom of entry on safety standards. The high degree of hazard in the air-transport industry makes it imperative that competitive pressures and the resulting struggle for survival do not lead to inadequate safety measures. This is a matter which cannot be controlled entirely through strict safety regulations imposed by public authority.
>
> One other probable result of unrestricted entry should be recognized before a decision is made to abandon present regulatory

> controls. It would substantially change the airline pattern in the United States. More competitive services would doubtless be available between important traffic centers; but air service at smaller cities, and on some routes, would disappear. The carrier would be under no obligation to provide service to cities that enplaned or deplaned little traffic. In fact, if traffic between the major cities was spread too thin among competing carriers, the airlines could not afford to provide service at the smaller communities.

Most other transportation economists with the benefit of experience within or extended study of the air transport industry have reached similar conclusions.

Any proposal to deregulate or substantially alter the current structure of regulation is therefore strongly opposed by the airlines of the United States. This is not to say that modifications to the current regulatory system should not be made and would not prove beneficial both to the traveling public and to the airline industry itself. The Air Transport Association, representing most of the United States scheduled airline industry, has proposed the following regulatory modifications:

> —Regulatory lag at the Civil Aeronautics Board should be reduced by specifying firm and reasonably short time limits within which petitions and applications must be either heard or dismissed.
>
> —Additionally, a way should be found to permit airline management latitude to make reasonable pricing adjustments without governmental intervention. Such flexibility is necessary to cope with suddenly changing cost pressures and it may be well to try it for a test period. Such a concept is popularly known as a zone of reasonableness; but the way this point has been addressed in the proposed Aviation Act of 1975 falls too wide of the mark.
>
> —The President's power to over-rule the CAB in regulatory decisions on international routes and rates should be limited to foreign policy and national defense considerations.

The foregoing regulatory modifications, contrary to the proposals contained in the Aviation Act of 1975, will strengthen, not weaken, the efficient, high-performance air transport system we already have.

One final point should be noted with regard to the controversy over deregulation. The issue thus far has been solely whether federal regulation of air transportation should be discontinued or

drastically modified. Overlooked is the probable effect of such an action on state and local regulatory activity. The states of California, Texas, and Alaska already have intrastate carriers which they regulate with regard to routes, rates, and other economic parameters. Most other states also exert some degree of regulatory control over airlines serving their territory. It is inevitable, if the federal government relinquishes its preemptive position in the regulation of interstate airline commerce, that states and local governments will quickly fill the vacuum. The chaos which would result from fifty separate state, or one thousand local, regulatory bodies legislating rules and regulations regarding interstate airline operations is difficult to comprehend.